

# Notice of Allowability

Application No.

10/727,026

Examiner

Kevin Quarterman

Applicant(s)

OUDERKIRK ET AL.

Art Unit

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## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02 July 2007.
2. ☒ The allowed claim(s) is/are 1,3-7,9-34 and 36-60.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

**DETAILED ACTION**

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Joshua Randall on 07 August 2007.
3. The application has been amended as follows: **In the Claims:**
  - a. In line 6 of claim 1, please insert --first-- preceding the term "non-planar" and insert --polymeric-- preceding the term "multilayer".
  - b. In the last line (line 8) of claim 1, please insert --polymeric-- preceding the term "multilayer".
  - c. In the first line (line 1) of claim 3, please insert --polymeric-- preceding the term "multilayer".
  - d. In the first line (line 1) of claim 5, please insert --polymeric-- preceding the term "multilayer".
  - e. In the first line (line 1) of claim 6, please insert --polymeric-- preceding the term "multilayer".
  - f. In line 2 of claim 7, please insert --first-- preceding the term "non-planar" and insert --polymeric-- preceding the term "multilayer".

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- g. In line 1 of claim 9, please insert --polymeric-- following the term "non-planar".
- h. In line 2 of claim 9, please insert --polymeric-- preceding the second appearance of the term "multilayer".
- i. In line 3 of claim 9, please insert --polymeric-- preceding the term "multilayer".
- j. In the first line (line 1) of claim 13, please insert --polymeric-- preceding the term "multilayer".
- k. In line 2 of claim 18, please insert --non-planar polymeric-- preceding the term "multilayer".
- l. In line 2 of claim 19, please insert --non-planar polymeric-- preceding the term "multilayer".
- m. In line 2 of claim 20, please insert --non-planar polymeric-- preceding the term "multilayer".
- n. In the first line (line 1) of claim 21, please insert --non-planar polymeric-- preceding the term "multilayer".
- o. In the first line (line 1) of claim 22, please insert --non-planar polymeric-- preceding the term "multilayer".
- p. In the first line (line 1) of claim 23, please insert --non-planar polymeric-- preceding the term "multilayer".
- q. In the first line (line 1) of claim 24, please insert --non-planar polymeric-- preceding the term "multilayer".

- r. In the first line (line 1) of claim 25, please insert --non-planar polymeric-- preceding the term "multilayer".
- s. In line 3 of claim 25, please insert --non-planar polymeric-- preceding the term "multilayer".
- t. In the first line (line 1) of claim 26, please insert --non-planar polymeric-- preceding the term "multilayer".
- u. In line 2 of claim 26, please insert --non-planar polymeric-- preceding the term "multilayer".
- v. In the first line (line 1) of claim 27, please insert --non-planar polymeric-- preceding the term "multilayer".
- w. In line 2 of claim 27, please insert --non-planar polymeric-- preceding the term "multilayer".
- x. In line 2 of claim 28, please insert --non-planar polymeric-- preceding the term "multilayer".
- y. In line 7 of claim 34, please insert --polymeric-- preceding the term "multilayer".
- z. In the first line (line 1) of claim 36, please insert --first-- preceding the term "non-planar".
- aa. In line 2 of claim 37, please insert --first-- preceding the term "non-planar".
- bb. In line 2 of claim 38, please insert --first-- preceding the term "non-planar".
- cc. In line 6 of claim 40, please insert --first-- preceding the term "non-planar" and insert --polymeric-- preceding the term "multilayer".

dd. In line 8 of claim 40, please insert --non-planar polymeric-- preceding the term "multilayer".

ee. In line 1 of claim 41, please insert --non-planar polymeric-- preceding the term "multilayer".

ff. In line 1 of claim 42, please insert --non-planar polymeric-- preceding the term "multilayer".

gg. In line 1 of claim 43, please insert --non-planar polymeric-- preceding the term "multilayer".

hh. In line 1 of claim 44, please insert --non-planar polymeric-- preceding the term "multilayer".

ii. In line 1 of claim 45, please insert --non-planar polymeric-- preceding the term "multilayer".

jj. In line 1 of claim 46, please insert --non-planar polymeric-- preceding the term "multilayer".

kk. In line 1 of claim 47, please insert --non-planar polymeric-- preceding the term "multilayer".

ll. In line 2 of claim 47, please insert --non-planar polymeric-- preceding the term "multilayer".

mm. In line 1 of claim 48, please insert --non-planar polymeric-- preceding the term "multilayer".

nn. In line 2 of claim 48, please insert --non-planar polymeric-- preceding the term "multilayer".

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oo. In line 1 of claim 49, please insert --non-planar polymeric-- preceding the term "multilayer".

pp. In line 2 of claim 49, please insert --non-planar polymeric-- preceding the term "multilayer".

qq. In line 2 of claim 50, please insert --non-planar polymeric-- preceding the term "multilayer".

rr. In line 7 of claim 50, please insert --non-planar polymeric-- preceding the term "multilayer".

***Response to Amendment***

4. Applicant's amendment and remarks received on 02 July 2007 have been entered.

***Election/Restrictions***

5. Claims 1 and 40 are directed to an allowable product. Pursuant to the procedures set forth in MPEP § 821.04(B), claims 34, 36-39, and 56-60, directed to the process of making or using an allowable product, previously withdrawn from consideration as a result of a restriction requirement, are hereby rejoined and fully examined for patentability under 37 CFR 1.104.

6. Because all claims previously withdrawn from consideration under 37 CFR 1.142 have been rejoined, **the restriction requirement as set forth in the Office action mailed on 12 December 2005 is hereby withdrawn.** In view of the withdrawal of the restriction requirement as to the rejoined inventions, applicant(s) are advised that if any

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claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

***Allowable Subject Matter***

7. Claims 1, 3-7, 9-34, and 36-60 are allowed.
8. The following is an examiner's statement of reasons for allowance: Applicant has incorporated the allowable subject matter of claim 8 (now canceled) into independent claims 1 and 34. Applicant has also rewritten claim 18 (now canceled) in independent form and also incorporated its allowable subject matter into independent claim 56. Thus, the instant application is now in condition for allowance. The reasons are repeated in this office action.
9. Regarding independent claim 1, the prior art of record neither shows or suggests a light source comprising, in addition to other limitations of the claim, a non-planar multilayer reflector having a non-uniform thickness. Due to their dependency upon independent claim 1, claims 3-7 and 9-33 are also allowable.
10. Regarding independent claim 34, the prior art of record neither shows or suggests a method of manufacturing a light source comprising, in addition to other limitations of the claim, positioning a non-planar polymeric multilayer reflector to reflect excitation light onto a phosphor material and transmit visible light, the non-planar

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multilayer reflector having a non-uniform thickness. Due to their dependency upon independent claim 34, claims 36-39 are also allowable.

11. Regarding independent claim 40, the prior art of record neither shows or suggest a light source comprising, in addition to other limitations of the claim, a second multilayer reflector disposed between the LED and the phosphor material. Due to their dependency upon independent claim 40, claims 41-55 are also allowable.

12. Regarding independent claim 56, the prior art of record neither shows of suggests a method of manufacturing a light source comprising, in addition to other limitations of the claim, positioning a second multilayer reflector between an LED and a phosphor material to reflect visible light and transmits the excitation light. Due to their dependency upon independent claim 56, claims 57-60 are also allowable.

13. The subject multilayer reflectors described earlier are provided for efficiently reflecting UV excitation light not absorbed by the phosphor layer back onto the phosphor layer to promote total internal reflection. The design is new and unique to the art.

14. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."



**Contact Information**


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Quarterman whose telephone number is (571) 272-2461. The examiner can normally be reached on M-TH (7-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin Quarterman  
Examiner  
Art Unit 2879

kq   
8 August 2007

  
**KARABI GUHARAY**  
**PRIMARY EXAMINER**